

S.No. : 576

BCE 2403

No. of Printed Pages : 04

Following Paper ID and Roll No. to be filled in your Answer Book.

PAPER ID : 23107

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B. Tech. Examination 2021-22

(Even Semester)

GEOINFORMATICS

Time : Three Hours]

[Maximum Marks : 60

Note :- Attempt all questions.

SECTION – A

1. Attempt all parts of the following : $8 \times 1 = 8$
- (a) Write the name of major components of GIS.
 - (b) Write down the limitations of remote sensing.
 - (c) What do you mean by sensor?
 - (d) Why is GIS important?
 - (e) What is the advantage of vertical aerial photograph?

[P. T. O.

- (f) Define the term parallex bar.
- (g) List down the satellite navigation system.
- (h) What is trilateration?

SECTION – B

2. Attempt any two parts of the following : $2 \times 6 = 12$

- (a) Why is GI important? What are the various sources from which data can be derived to be used in GIS?
- (b) What are the principles of aerial photography? Mention the types of aerial photography.
- (c) The average scale of photograph is equal to $1/6500$, the min and max ground elevation are 170 m and 400 m. If the focal length of the camera is given to be 15 cm. Calculate the flying height of aircraft.
- (d) Describe briefly the concept of three dimensional position location via intersection of multiple spheres.

SECTION – C

Note :- Attempt all questions. Attempt any two parts from each questions. $5 \times 8 = 40$

3. (a) What are the types of data in GIS? Also write their advantages and disadvantages.
- (b) Explain “GIS as a system and decision support tool”.
- (c) Briefly describe the application of GIS. Discuss how closely GIS is related to remote sensing.
4. (a) Define remote sensing. Differentiate between active and passive system of remote sensing.
- (b) List the applications of remote sensing and describe any two in detail.
- (c) Write a short note on false colour composite, also show idealised remote sensing system.
5. (a) How do you do aerial photography? How can you determine the scale of an aerial photography?

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- (b) Define and explain the term photo interpretation. Discuss the factors that aid in photo-interpretation.
 - (c) Define relief. Derive an expression for displacement due to ground relief
6. (a) Give a brief description of GIS. What are the basic advantages over traditional method of survey?
- (b) What are the three segments of GPS? Describe them briefly.
 - (c) Explain the working principle of GPS. How does DGPS different from GPS?

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